

What is claimed is:

1. A method for transporting a substrate plate along a transport plane by:
inducing electric charges in the substrate plate by impressing a voltage on each of a plurality of electrodes arranged along the transport plane, and impressing a voltage on each of the plurality of electrodes so as to generate an electrode charge code identical to a plate charge code induced in the substrate plate to levitate the substrate plate against the transport plane by electrostatic forces; and
switching the voltage impressed on the plurality of electrodes in accordance with a time interval required for producing dielectric polarization in the substrate plate.
2. A method according to claim 1, wherein the voltage is switched so that a voltage switching cycle is shorter than a polarization time constant of the substrate plate.
3. A method according to claim 1, wherein a gas for levitating the substrate plate is supplied between the substrate plate and the transport plane.
4. A transporting apparatus that transports a substrate plate along a transport plane comprising:
a plurality of electrodes arranged along the transport plane; and
a control apparatus that induces electric charges in the substrate plate by impressing a voltage on each of a plurality of electrodes arranged along the transport plane, and impresses a voltage on each of the plurality of electrodes so as to generate an electrode charge code identical to a plate charge code induced in the substrate, and switches the voltage impressed on the plurality of electrodes in accordance with a time interval required for producing dielectric polarization in the substrate plate.
5. A transporting apparatus according to claim 4, wherein a plurality of second electrodes are arranged at right angles to a direction of the electrodes on the transport plane.
6. A transporting apparatus according to claim 5, wherein said second electrodes

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are arranged on both lateral sides of the electrodes.

7. A transporting apparatus according to claim 4, wherein an insulating member is disposed between the substrate plate and the transport plane.

8. A transporting apparatus according to claim 4, wherein a gas supply apparatus is provided between the substrate plate and the transport plane.

9. A method for positioning a substrate plate on a specific plane comprising:
 a first step for inducing electric charges in the substrate plate by impressing a voltage on each of a plurality of electrodes arranged on the plane;
 a second step for impressing a voltage, that is different from the voltage impressed in the first step, on each of the plurality of electrodes so as to levitate the substrate plate against the plane by electrostatic forces; and
 a third step for moving the substrate plate in a specific direction while switching the voltage impressed on the plurality of electrodes.

10. A method for positioning according to claim 9, wherein, in the third step, the voltage is switched in accordance with a time interval required for producing dielectric polarization in the substrate plate.

11. A method for positioning according to claim 9, wherein said method comprises a fourth step for electrostatic chucking the substrate plate by electrostatic forces on the plane that has been moved to a specific position.

12. A method for positioning according to claim 9, wherein a gas for levitating the substrate plate is supplied between the substrate plate and the plane.

13. A positioning apparatus that positions a substrate plate on a specific plane comprising:
 a plurality of electrodes arranged along the plane; and
 a control apparatus that induces electric charges in the substrate plate by impressing a voltage on each of the plurality of electrodes, and then switches the

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voltage impressed on each of the plurality of electrodes in accordance with a time interval required for producing dielectric polarization in the substrate plate.

14. A positioning apparatus according to claim 13, wherein provided are: a first electrode section having the plurality of first electrodes arranged in a first direction, and a second electrode section having the plurality of second electrodes arranged in a second direction which is at right angles to the first direction.

15. A positioning apparatus according to claim 14, wherein second electrode sections are distributed in separate groups in a direction at right angles to the second direction.

16. A positioning apparatus according to claim 13, wherein an insulating member is disposed between the substrate plate and the plane.

17. A positioning apparatus according to claim 13, wherein a gas supply apparatus that supplies a gas between the substrate plate and the plane.

18. A method for holding a substrate plate on a holding surface, wherein a method for positioning recited in claim 9 is used to position the substrate plate on the holding surface.

19. A holding apparatus that holds a substrate plate on a holding surface, wherein a positioning apparatus recited in claim 13 is provided for positioning the substrate plate on the holding surface.

20. A method for exposure having a step of emitting an illumination light for exposure processing, wherein the substrate plate is transported to a path of the illumination light according to a method for transporting a substrate plate recited in one of claim 1.

21. A method for exposure comprising a step of emitting an illumination light; and a step of positioning a substrate plate in a path of the illumination light according to a

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method of positioning recited in claim 9.

22. A method for exposure comprising a step of emitting an illumination light for exposure processing; and a step of positioning a substrate plate in a path of the illumination light according to the method for holding a substrate plate recited in claim 18.

23. An exposure apparatus comprising an illumination system that emits an illumination light for exposure processing; and a transport apparatus recited in claim 4 that transports a substrate plate to a path of the illumination light.

24. An exposure apparatus comprising an illumination system that emits an illumination light for exposure processing; and a positioning apparatus recited in claim 13 that positions a substrate plate disposed in a path of the illumination light.

25. An exposure apparatus comprising an illumination system that emits an illumination light for exposure processing; and the substrate holding apparatus recited in claim 19 that holds a substrate plate held in a path of the illumination light.

26. A method for manufacturing a device including a photolithographic step, wherein the photolithographic step is carried out according to a method of exposure recited in claim 20.

27. A device, has a specific fabricated pattern, manufactured by using an exposure apparatus recited in claims 23.

28. A method for manufacturing a device including a photolithographic step, wherein the photolithographic step is carried out according to a method of exposure recited in claim 21.

29. A method for manufacturing a device including a photolithographic step, wherein the photolithographic step is carried out according to a method of exposure recited in claim 22.

30. A device, has a specific fabricated pattern, manufactured by using an exposure apparatus recited in claims 24.

31. A device, has a specific fabricated pattern, manufactured by using an exposure apparatus recited in claims 25.

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